coalescence with neighbouring droplets. A polyaphron dispersion is rather different and is much more unusual. Polyaphron dispersions were first discovered about thirty years ago. One way of understanding a polyaphron dispersion is to regard it as being rather like a standard foam wherein the internal gaseous phase of the film is replaced by a liquid. In the literature it has been postulated that the internal phase is surrounded by a double layers of surfactant molecules which prevent coalescence with neighbouring droplets. Emulsions and polyaphron dispersions have different properties.

One of the advantages of a polyaphron dispersion over an emulsion is that it can be diluted to any extent by the addition of more continuous phase without the addition of more surfactant. In contrast to this, if an emulsion is diluted, typically it will become unstable and coalesce and separate into two phases, an oil phase and an aqueous phase. In contrast to this, the polyaphron dispersion droplets remain as individual droplets. Thus, a polyaphron dispersion is more robust.

In view of the above, it is submitted that Fukuda does not disclose the claimed invention.

It is further submitted that Fukuda would not make the claimed invention obvious.

One of the problems to be solved having regard to Fukuda is to provide an improved composition having two aqueous phases comprising two materials which are mutually incompatible, and which may be kept separate until the moment of use (see page 9, lines 22 to 28).

The present invention solves this problem by providing a polyaphron dispersion comprising an external phase and polyaphrons having an internal phase, the internal phase comprising (i) a first phase which is liquid and (ii) a second phase which is liquid or gaseous. The external phase may be aqueous and comprise one of the materials, and the second internal phase may be aqueous and comprises another material. The present inventors have advantageously found that such compositions may comprise a higher level of the internal phases and a lower level of surfactants than those disclosed in Fukuda (see for example page 7, lines 10 to 24 of the present invention).

The complex polyaphron dispersions of the present invention may comprise from 70% to 95% by weight of the internal phase, and 5 to 30% by weight of the external or continuous phase (see page 2, lines 9 to 12), and optionally from 0.1 to 3% of surfactant based in the total weight of the dispersion. In contrast to this, the water/oil/water emulsions of Fukuda may comprise only a maximum of 75 vol% of water/oil emulsion (internal phase) dispersed in the W/O/W emulsion, and require much higher level of surfactant. In Fukuda the oil-soluble emulsifier is usually from 1 to 20% (wt/vol) of the amount of oil-component used, and is preferably 3% (wt/vol) or higher. Furthermore the emulsions of Fukuda comprise from 0.3 to 30% (wt/vol) of water-soluble emulsifier (see claim 3, column 6, lines 16 to 20 and column 4, line 45)).

There is no teaching or suggestion in Fukuda of using polyaphron dispersions. Accordingly, it is submitted that the present invention is not obvious based on Fukuda.

Although polyaphron dispersions containing a single liquid external phase and a single liquid internal phase were known at the priority date of this application. It was not known that compositions such as those disclosed in the present invention could exist as stable compositions.

The examiner's rejection based on Fukuda should be withdrawn.

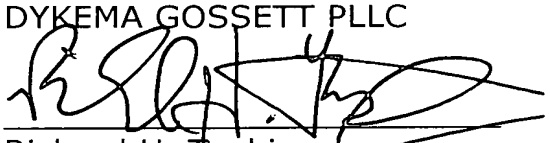
The examiner has rejected claims 8 and 10 under 35 USC 102(b) as being anticipated by Li et al.

However, claims 8 and 10 are dependent on claim 1, and the examiner has not rejected claim 1 based on Li et al. As such, his rejection makes no sense. In any event, Li et al. cannot overcome the deficiencies of Fukuda.

Favorable reevaluation is requested.

Respectfully submitted,

DYKEMA GOSSETT PLLC



Richard H. Tushin
Registration No. 27,297
Third Floor West
1300 I Street, N. W.
Washington, D.C. 20005
(202) 906-8680